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Notes on the Treatment of Skin Diseases.

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Inflammations and Hemorrhages of the Skin.

By GEORGE H. ROHÉ, M. D.,

PROFESSOR OF HYGIENE AND CLINICAL DERMATOLOGY IN THE COLLEGE OF
PHYSICIANS AND SURGEONS, BALTIMORE; AUTHOR OF "A TEXT BOOK
OF HYGIENE," ETC.

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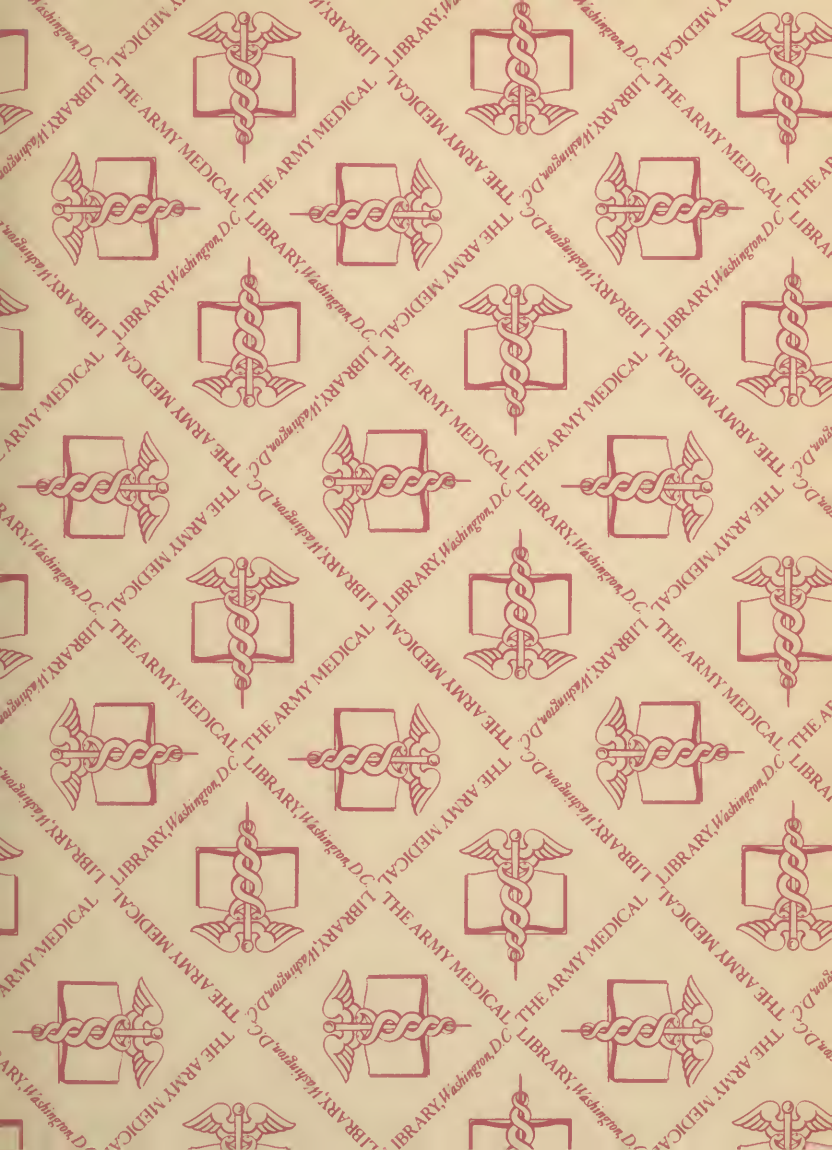
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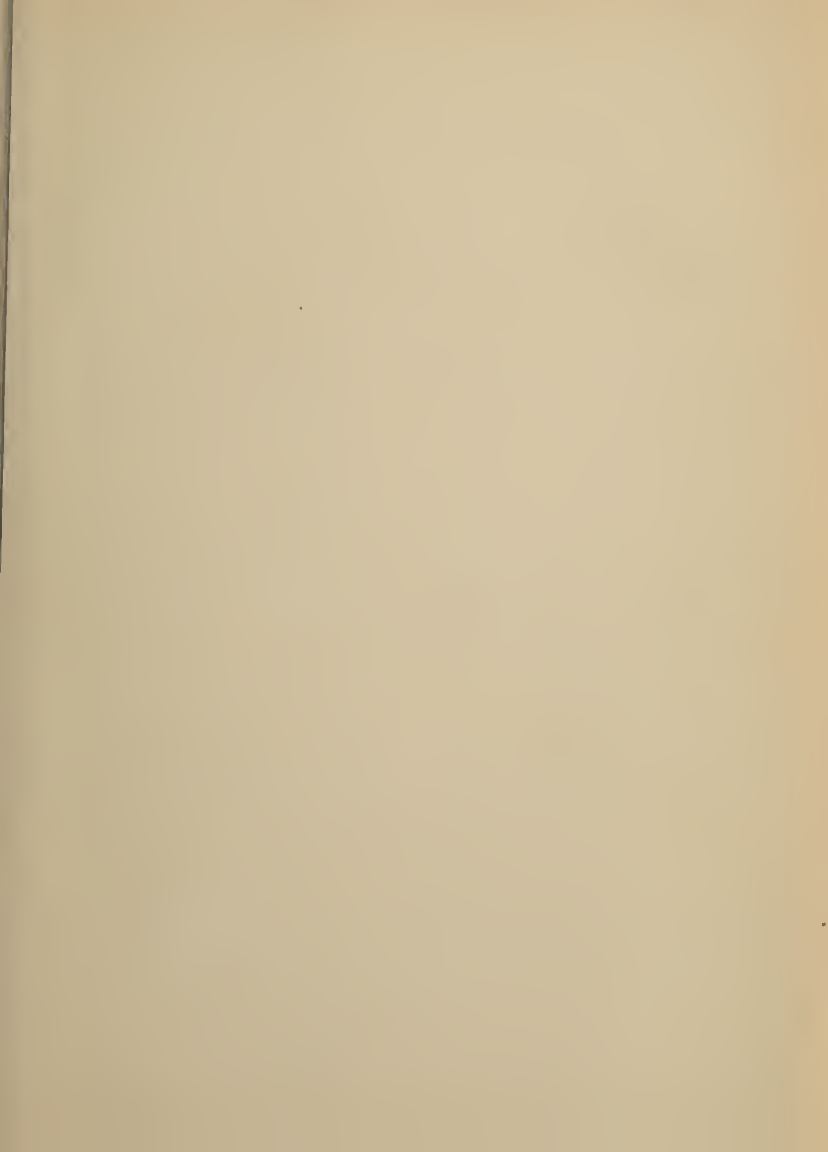


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Inflammations and Hemorrhages of
the Skin.

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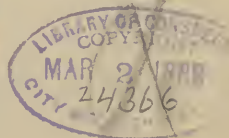
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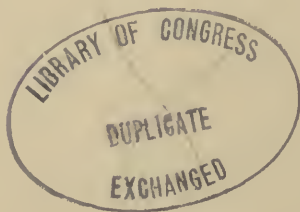


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PREFACE.

The very favorable reception accorded the two previous numbers of these "PRACTICAL NOTES" has been a source of gratification to the author.

In the following pages the same efforts have been made to secure accuracy, clearness and brevity in the description of the various diseases under consideration. The therapeutic measures recommended are mainly those approved by my own experience.

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INFLAMMATIONS OF THE SKIN.

The class of inflammations of the skin includes a number of affections which cannot be strictly termed inflammatory, but which are so near, and sometimes even overlap the border line that they cannot well be excluded. These affections are the erythemas, urticaria, and some of the drug eruptions.

The exanthemata are not skin diseases proper, but specific fevers with local cutaneous manifestations. They rarely come under the notice of the dermatologist, except in cases of doubtful diagnosis, and the cutaneous lesion scarcely ever calls for local treatment. They will not receive notice in this work therefore beyond pointing out the differential diagnosis where necessary.

In classifying the erythemata and urticaria with the inflammatory diseases, I am in accord with the expressed judgment of the representative body of American dermatologists.

ERYTHEMA.

Erythema is a redness of the skin due to excess of blood in the part. It may be transitory or lasting. The hyperemia may be active or passive. In the former the skin is usually bright red in color, and the temperature slightly elevated. Sometimes there is also slight swelling, indicating exudation of serum, and perhaps cell proliferation; in other words inflammation. In passive hyperemia, the color is of a deeper red, brownish or bluish, and there is no local elevation of temperature. There may at times be slight hemorrhages into the dermal tissues.

The erythemas are clinically divided into the *congestive* and *exudative*. In the former the redness is due merely to a temporary accumulation of blood in the part. In the other forms the redness is more permanent and accompanied by exudation and local alterations of nutrition. These are the exudative erythemas, and constitute the transition forms to the inflammations proper.

Congestive erythemas may either be idiopathic, or symptomatic. The idiopathic forms are all produced either by traumatism, heat, or irritants acting on the skin. Thus we have redness of the skin from continued pressure

upon any part, as, for example, under belts, girdles, garters, or upon the tubera ischii after sitting for a length of time. A semi-circle of redness is frequently seen upon the forehead from a tight hat-band. Moderate chafing also exhibits an example of traumatic erythema; when it becomes more severe, it is apt to run into eczema. Light degrees of sunburn give examples of the erythema produced by heat.

A class of remedies termed rubefacients—in works upon therapeutics—give rise to the erythema from irritants. The ingestion of certain drugs also frequently causes an erythematous eruption.

A more important group of hyperemias (congestive erythema) is that of the symptomatic. It is a common observation that many febrile, and also non-febrile diseases are accompanied at times by circumscribed redness of the skin.

Typhus and typhoid fever, rheumatism, small-pox and vaccinia may be accompanied by an eruption of rose-colored spots. They are important in a diagnostic point of view. In many of the diseases of children, especially disorders of the digestive organs, fugitive hyperemias may be observed. At times they may bear considerable resemblance to an eruption of measles or scarlatina.

In small-pox epidemics a peculiar hyperemia is sometimes observed, occurring contemporaneously with the primary fever, *i. e.*, two or three days before the appearance of the eruption. This is consequently of considerable importance as a diagnostic point. An erythematous efflorescence appears upon the abdomen and upper part of the thighs, having the form, when the thighs are adducted, of a truncated pyramid with the base upward: the hyperemia is bounded by an imaginary transverse line at the height of the umbilicus and another about two inches above the knees, and connecting the extremities of these lines by two others, running parallel with the loins.

The operation of vaccination—or, more properly, the vaccine disease—is sometimes accompanied by an eruption of rose-colored spots—the so-called *roseola vaccina*; it is of no importance and requires no treatment. Exceptionally, however, it runs into a dermatitis (erysipelas), and may then become a serious complication.

The *treatment* of simple erythema is merely symptomatic. An evaporating and cooling lotion, as Cologne-water, or a lotion of bicarbonate of sodium, half an ounce to the pint of cool water [1:32] will be all that is required. When the hyperemia approaches the inflamma-

tory stage, as in erythema intertrigo (chafing) the following measures will give satisfactory results. The parts should be kept clean and as dry as practicable. Portions of the skin ordinarily in contact and rubbing against each other as in the perineal region, between the buttocks, in the axillæ, under pendulous mammæ, etc., should be kept separated by pledgets of lint dusted with oxide of zinc or precipitated chalk. Where the redness is intense and there is much heat or tingling, black wash applied on soft cloths and frequently renewed is an admirable application. The following powder will often prove useful :

R:—Pulv. zinci oxidi, $\bar{\text{z}}$ ss. [16.]
 Pulv. camphoræ, $\bar{\text{3}}$ j ss [6]
 Pulv. amyli, $\bar{\text{z}}$ j. [32]

M. S: —Dusting powder.

All the exudative erythemas may conveniently be grouped together under the collective title; *erythema multiforme*. The sub-varieties are the papular, bullous and nodose forms. A large number of intermediate forms have been described, but they are so manifestly merely stages of the affection that they will not be described as separate diseases. Erythema multiforme is characterised by its location which is almost always on the backs of the hands and

feet, extending in some cases up the arms and legs, and even in rare instances invading the entire body. The latter is especially liable to occur in the course of rheumatism, diphtheria and other febrile diseases.

The papular form of erythema multiforme is the most frequent. The papules are small, dark red, sometimes shading into brown, and flattened. In a few days usually, the reddish color gives place to varying shades of brownish, greenish, blueish, even black, these depending upon the exit of the coloring matter of the blood during the height of the process. The eruption is frequently the source of much alarm, but in itself has no significance. The papules are usually interspersed with erythematous spots, rings, gyrating lines, (where two or more rings have run into each other), tubercles, and sometimes vesicles or large blebs. These sometimes simulate an eruption of pemphigus. (q.v.).

The nodose form of erythema multiforme consists of circumscribed swellings of various sizes, from a bean to a hen's egg, or larger, mostly situated upon the anterior surface of the leg, but also upon the face, and other portions of the body. They are at first red in color, but afterward become blueish, greenish, or purplish,

resembling very closely a bruise. They are painful and sore to the touch. They never suppurate. Sometimes the swellings closely simulate syphilitic gummata, but they never break down as these latter formations do.

The *treatment* is simple. Pain or burning may be relieved by a cooling lotion. In the generalised forms of erythema multiforme, the patient should always be carefully examined in order to determine whether the eruption is symptomatic of grave internal diseases. It has been observed in connexion with rheumatism with cardiac complications, pneumonia, diphtheria and Bright's disease.

URTICARIA.

Nettle-rash is an acute eruption accompanied by tingling, burning and itching.

The typical form of this eruption is a broad, flat, slightly elevated papule with a bright red border and a whitish or lighter red centre. This lesion is termed *a wheal*, and is the characteristic feature of the affection. The wheal is, however, not the only form in which the eruption of urticaria manifests itself, as the efflorescence may be composed in great part, or entirely, of small papules, linear elevations, or considerable tuberosities from the size of a hazelnut to a hen's egg. The size of the lesions

clearly depends simply upon the amount of exudation, and perhaps upon a greater or less predisposition in the skin to irritative action of this character. The eruption generally begins with great suddenness, is sometimes accompanied with febrile symptoms, and frequently disappears as suddenly as it came. Itching and burning are characteristic symptoms of the eruption. Sometimes the top of one or more of the wheals is occupied by a vesicle. This simply depends upon the increased effusion of serum, and beyond slightly changing the appearance of the eruption has no significance. In rare cases, especially in delicate, irritable skins, pigmented spots, yellowish, greenish or brownish in color may remain for some time to mark the sites of the eruption.

Anatomically, the wheal consists of an exudation of serum into the Malpighian layer of the epidermis and the upper layers of the corium, with a limited annular hyperemia due to a dilatation of the smaller vessels in the marginal zone of the wheal.

The *causes* of urticaria are both external and internal.

In addition to the irritating influence of plants of the nettle family, and which has given to the affection one of its popular names, *nettle rash*,

the external, direct or traumatic causes of urticaria are the bites of various insects, as lice, mosquitos, fleas, or bed-bugs; contact with larvæ of various species of lepidoptera, and in some cases scratching or friction of the skin.

It is, however, only in persons with a peculiar irritable condition of the skin, that urticaria of any great extent follows these influences. In such cases a single flea-bite may give rise to the most intense pruritus and general urticaria. In children it is frequently caused by the irritation of the bites of lice or bed-bugs. In these instances, remedies which do not comprise removal of the cause, have no effect on the duration of the affection.

The most frequent causes of urticaria are internal or indirect, the eruption on the skin being probably a reflex effect of an irritation of some internal organ. In by far the majority of instances it is due to irritation of the stomach or other portion of the intestinal canal. The ingestion of certain articles of food, especially shell-fish, pork, cheese, strawberries and raspberries, or the administration of various medicinal agents, especially terebinthinate remedies, produce in certain predisposed individuals an abundant outbreak of urticaria. The eruption is frequently accompanied by symptoms of de-

eided gastro-intestinal irritation, as vomiting and purging ; sometimes choleriform in character. Not infrequently catarrhal jaundice is present in these cases, and seems to intensify the pruritus, probably by a direct irritation of the cutaneous nerves due to the circulation of biliary matter in the blood.

Very often the urticaria can be ascribed only to a peculiar idiosyncrasy with reference to the articles of food causing the eruption, while at other times dyspepsia, or rather gastric irritability, seems to be present. In these cases the individual is compelled to limit himself to a very short diet-list, any deviation from which is sure to bring on an attack of acute indigestion and urticaria. This latter is especially liable to be the cause in the frequently-recurring, almost chronic urticaria, so often seen in young children.

In persons suffering from the gastric irritability here referred to, an eruption of little, pinkish, intensely itching papules frequently occurs, accompanying attacks of acute indigestion. This papular eruption is primarily nothing more than an urticaria, but in consequence of the continual scratching which it induces, eczema results secondarily. The primary eruption is frequently not recognised, and hence the eczema

is too often believed to be caused by the gastric derangement, leading to its irrational treatment.

If, in consequence of the administration of an alkali, or a small dose of calomel, the urticaria ceases, its cause being removed, the eczema generally gets well without further treatment, unless it has become chronic, when proper local measures should be instituted.

A number of functional or organic disorders of the female sexual apparatus are sometimes complicated by chronic urticaria, but as these troubles are usually accompanied by gastric derangement, the latter may, in most of the cases, be the exciting cause of the eruption.

In malarial regions, intermittent urticaria, with or without febrile symptoms, is sometimes seen. Emotional disturbances, such as fright, anger or great sorrow, appear not infrequently to stand in a causative relation to urticaria. Moreover, many well-defined nervous disorders are complicated with the same affection. It must also be confessed that cases occur for which no cause can be discovered.

The *prognosis*, so far as life is concerned, is favorable. If the cause of the disease can be discovered and removed, it usually requires no further treatment. Very often, however, it becomes chronic and persistent, either from non-

recognition of the cause, or because the latter cannot be removed.

The *diagnosis* is easy. Remembering the characteristic lesion of urticaria and the subjective sensations of itching or burning, always present, no mistake is liable to occur in differentiating this from other cutaneous diseases. To discover the cause is, however, as has been before pointed out, often most difficult and unsatisfactory.

The *pathology* of urticaria is one of those unsettled problems which abound, not only in dermatology, but also in other special fields of medicine. Chemical examinations of the urine have shown that there is frequently a deficient elimination of urea and uric acid in cases of urticaria. It has been supposed by some that the retention of these excretory matters in the blood produces an irritating effect upon the peripheral nerves in the skin and so gives rise to the development of the characteristic eruption. It has also been supposed that a similar irritation may be produced in consequence of the resorption of some products of decomposition in the alimentary canal. While both these theories may be to a certain very limited degree true, they explain but few of the cases.

The nature of urticaria has long been held to

be neuropathic, but only the most recent discoveries in the physiology of the nervous system have furnished some sound and reasonable basis upon which to build a safe and satisfactory theory.

Without going into the history of the researches upon the vaso-motor nerves, it will suffice to say, that it is now pretty generally admitted that there are two sorts of vaso-motor nerves, antagonistic to each other in their effects upon the vessels—the vaso-constrictors and vaso-dilators: that these nerves originate in ganglia situated in the spinal cord and medulla oblongata, and that they leave the cord by the posterior nerve roots. This important discovery contradicts Bell's law that only afferent nerves are contained in the posterior nerve-roots, and demonstrates that these roots also contain efferent nerves. Whether the vaso-motor nerves are really sensitive nerve-fibres, or whether these bundles contain an independent set of vasal nerves is not yet known.

It has been further demonstrated that a reflex contraction or dilatation of the small blood-vessels is possible, and furthermore, that certain systems of vessels act in a manner antagonistic to each other. This antagonism has been particularly studied in relation to

the vessels of the skin and of the abdominal viscera. It has been found, namely, that when the constrictors control the abdominal vessels, the dilators act upon the vessels of the skin.* The latter is not to be ascribed to a passive dilatation in consequence of the increased blood-pressure, a complementary dilatation, so to speak, but active and due to a stimulant effect, possibly reflex, upon the vaso-dilators of the skin.

The circumstance pointed out by Stricker and before referred to, that irritation of sensitive nerve-fibres causes dilatation of vessels, seems to point to a solution, namely, that certain sensitive nerve-fibres possess, in addition, the function of vaso-motors. The action of the vaso-dilators cannot always be due to reflex impressions, because the effect is produced upon a very limited section of the skin, and in other cases is produced at the site of the irritation. Examples of this are seen in the circumscribed production of urticaria in consequence of contact with nettles, bites of insects, etc., but I cannot doubt that general urticaria, the accompaniment of gastric irritability, is due to a

* Stricker (*Allg. Pathologie*, p. 216) says, "There is reason to believe that in the nervous centres the constrictors for the vessels of the abdominal viscera, and the dilators for those of the skin are more easily excited than their antagonists."

reflected impression upon the vaso-motor centres themselves.

Treatment.—Notwithstanding the frequency of urticaria the therapeutics of the affection are in a very unsatisfactory state. When the eruption is the result of irritating ingesta in the stomach or intestinal canal, an emetic or brisk purge will in most cases promptly relieve the affection. As an emetic I decidedly prefer the sulphate of zinc (20 grs. [1.5] in water) or fl. ext. of ipecac given in a little syrup. Except in young children, however, such acute cases do not very often come into the hands of the practitioner, and almost never into those of the specialist.

When, however, the disease has become chronic, or is very frequently recurring, it gives a great deal of annoyance both to the patient and physician. The cause must be sought out and removed if possible. It is frequently necessary to go over the patient's functions, one by one, to rigidly revise the diet-list, regulate the bowels, stimulate the action of the liver if this seems necessary. The urine should be examined and any abnormality of this secretion corrected if possible. The saline laxatives and diuretics will find frequent application in these condi-

tions. In cases where the eruption shows a regular periodicity in its recurrence, full doses of quinine sometimes have a prompt effect, and if it fails, arsenic may be tried and sometimes found successful.

Recently, several of the later remedies have been tried and reported favorably. Thus 20 gr. doses [1.5] of salicylate of sodium three times a day have been followed by prompt *cure* in a number of cases of more or less persistent urticaria. My own experience with this remedy is favorable. Schwimmer reports success in similar cases with 1-60 gr. [.001] doses of atropine sulphate. Still more recently Pick has reported brilliant results with pilocarpine. The eruption disappears as soon as the effect of the remedy upon the sweat-glands becomes apparent. It may be used hypodermatically in doses of one-sixth of a grain, [.01] or half-drachm [2.] doses of fluid extract of jaborandi may be given. It promises to be worthy of trial. Some years ago I treated, experimentally, several troublesome chronic cases with drop doses of balsam of copaiba, which I had seen recommended in some journal. My success with this remedy was not uniform, however, and I should be disposed to give the jaborandi or salicylate of sodium the preference. The local treatment

is sometimes a matter of importance. Any spirituous lotion, sol. carbolic acid 1-2 per cent., or black wash may be used. I have found the least disagreeable anti-pruritic lotion to be one consisting of 3i. of benzoic acid to a pint of water, [1:100].

SIMPLE INFLAMMATIONS OF THE SKIN.

The inflammatory diseases included under this title are divided into such as are due to the influence of mechanical violence (*dermatitis traumatica*); from chemical irritants (*dermatitis venenata*); from extremes of temperature (*dermatitis calorica*); from the ingestion of certain drugs (*dermatitis medicamentosa*) and those due to some profound neurotic or vascular disturbance (*dermatitis gangrenosa*).

Traumatic dermatitis is due to local mechanical injury. It includes inflammations from excoriations, bites and stings of insects, bruises, lacerated wounds, or prolonged pressure on a part.

The *treatment* consists primarily in removal of the cause if still acting, and the application of such measures as will reduce the inflammation. Cold water, astringent lotions, and if the deeper structures have been exposed, antiseptic dressings may be used.

Dermatitis from chemical irritants locally applied is not infrequent.

Cantharides, croton oil, tartar emetic, mercurial compounds, turpentine, arnica, mustard, petroleum, poison ivy, poison sumach, strong acids and alkalis, acrid secretions, or discharges from wounds or ulcers may all cause dermatitis of varying degrees of intensity. All the different lesions characteristic of inflammation of the skin may be present.

The dermatitis from poison vine or poison sumach is relatively frequent in the spring and autumn. Contact with these plants produces an intense inflammation characterised by redness, great swelling, burning and itching. There is usually an abundant eruption of vesicles which break and pour out a profuse sticky serous secretion. The hands, face and genital organs are most frequently affected.

The diagnosis is usually easy, erysipelas and acute eczema being the only diseases that can be mistaken for it. In the former there is absence of itching and vesiculation, and the fever is usually high. In acute eczema, the outbreak is usually rarely so violent, except in young children in whom the action of the poison can generally be excluded. Eczema also has usually a different localisation from the poison vine erup-

tion ; being rarely limited to the same portions of the surface as the latter.

There is a popular tradition that when an individual once suffers from a poison vine eruption, it will return annually for seven years, without renewed exposure. This is an error. Most people who suffer from the eruption every year contract the same after being again exposed to the cause.

The *treatment* must be directed to subduing the inflammation and relieving the subjective symptoms. In the poison vine eruption, lotions of sulphate of zinc, half-a-drachm to the pint of water ; [1 : 200] or of bicarbonate of soda, (\bar{z} j — O j) [1 : 16] or black wash generally give prompt relief. The first named is said by Hardaway to be almost a specific. Van Harlingen recommends fluid extract of grindelia robusta, (3 ij to water \bar{z} j) [1 : 4]. The following is also said to rarely fail :

R :—Tr. lobeliæ, \bar{z} ij, [60.]
 Sodii bicarb, 3j, [4.]
 Aquæ, \bar{z} ij, [60.]

All of these lotions are to be applied to the affected surface on cloths kept constantly wet with the preparation.

Drying powders such as prepared chalk,

starch, or orris root, may also be sometimes used to advantage.

The inflammation due to arnica or any of the other articles mentioned above generally yields quickly to mild astringent lotions or ointments (oxide of zinc ointment, Hebra's ointment) or dusting powders of starch containing camphor, oxide of zinc or calamine.

Dermatitis from extremes of temperature includes both inflammations from excessive heat (burns) and from extreme cold (frost-bite).

Burns are usually divided according to the intensity of the acting cause into three degrees. In the first there is redness, some pain and swelling. In the second degree vesicles or blebs form upon the inflamed skin, accompanied usually by severe pain. In the third degree, necrosis of tissue to a varying depth occurs. If the burn is very severe or of great extent, there is usually great depression of system and the patient may die of shock. In other severe cases, the patient survives the shock, but succumbs to exhaustion, septic absorption, embolism or pneumonia. The prognosis in all severe grades of burns is grave.

The *treatment* of burns of the first degree consists simply in relieving the pain. For this purpose nothing is superior to a lotion of bicar-

bonate of soda, applied on soft cloths which are kept constantly saturated. The same application is useful in burns of the second degree. The blisters should be punctured, and the denuded epidermis protected by absorbent cotton or lint. Dusting powders of starch ; carbolised oil, or a paste of carbolic acid, vaseline and prepared chalk will all be of value.

In the profound burns of the third degree, the removal of the necrotic masses should be promoted by poultices or warm water dressings rendered aseptic with carbolic acid, or solution of sodium hypochlorite. The denuded surfaces should then be dusted with iodoform or dressed with boracic or carbolic acid ointment. Care should be taken to prevent the formation of contractile or hypertrophic scars.

Frost-bite.—Like burns, frost-bites also manifest themselves in different degrees. The first degree or erythematous frost-bite, is popularly known as chilblain. The parts most frequently attacked by chilblains are the toes and fingers. The nose and ears are also sometimes affected. The affected spots are bluish-red, slightly swollen, sometimes painful, but most frequently annoy by their persistent burning and itching. They often return in successive winters. Sometimes the epidermis is destroyed by rubbing

or scratching and a superficial, painful ulcer remains.

In the second stage of frost-bite blebs, with serous or bloody contents form, under which a deep ulcer is often found. The healing of this generally takes place very slowly.

In the third stage, deep sloughs take place, which usually require amputation of the affected extremity. If the necrotic masses are not removed by the surgeon, septic absorption is liable to occur and the patient dies of septicemia or pyemia.

The *treatment* of acute frost-bite, that is, during the action of the cold, usually consists in rubbing the frozen part with snow or cold water until the circulation is re-established. In the author's opinion, however, it would be more appropriate to immerse the frozen part in *hot* water in order to restore promptly the circulation of blood. Afterward, astringent lotions of acetate of lead, sulphate of zinc or alum may be used.

In chilblains, collodion painted on the spot is frequently of service. A dilute solution of nitric acid ($\frac{3}{4}$ ij — Oj) [1 : 8] is also recommended. The following paste may also be used :—

R̄ :—

Pulv. camphoræ ;	gr. x	[.6]
Cretæ preparatæ.	℥ j.	[30.]
Ol. lini,	℥ ij.	[60.]
Bals. Peruv.	gtt. xx	[1.]

M. ft. pasta.

A mixture of equal parts of ichthyol and oil of turpentine, painted on with a camel's hair brush, is highly recommended by a recent German writer.

In the second stage, the sloughing bases of the blebs should be touched with a strong solution of nitrate of silver (3 j — ℥ j) [1 : 8] and afterward dusted with iodoform or powdered boracic acid. In the third stage, if amputation is not required, or is impracticable, the surface after removal of the slough must be dressed on antiseptic principles.

Dermatitis from the ingestion of certain drugs is rather more frequent than is generally supposed. A considerable number of medicines in daily use produce in some persons inflammatory eruptions which are often puzzling to the physician as well as annoying to the patient.

With regard to most of these drugs, only a comparatively small proportion of individuals who take them are attacked. The reason for the susceptibility on the one hand and the immunity on the other is not known.

The following is a brief abstract of the cutaneous manifestations which have been noted after the administration of the drugs mentioned.

Erythematous eruptions have been noticed after taking belladonna, hyoscyamus, stramonium, nitrite of amyl, chloroform, arsenic, quinine, opium, turpentine, cubeb, copaiba, antipyrine and benzoate of sodium.

Urticaria has been observed after taking copaiba, quinine, opium, chloral hydrate, carbolic acid, arsenic, bromide of potassium, salicylic acid and antipyrine.

The urticarial and erythematous eruptions are frequently combined in the same case.

Polymorphous erythema has occurred after arsenic, quinine, digitalis, copaiba and bromide of potassium.

Vesicular and Bullous eruptions sometimes follow the administration of arsenic (herpes zoster), cannabis Indica, iodide and bromide of potassium, quinine, salicylate of sodium, phosphoric acid.

Pustular and phlegmonous eruptions, (pustules, boils, abscesses, diffuse phlegmons, erysipelatous inflammation) have been observed after taking iodide and bromide of potassium, arsenic, quinine, hyoscyamus, opium, chloral hydrate,

digitalis, iodide of mercury, calomel and pilocarpin.

Purpura has been noted after iodide of potassium, salicylic acid, quinine, chloral hydrate and camphor.

The *diagnosis* of drug eruptions may cause some difficulty. The eruption from quinine sometimes presents a very marked resemblance to scarlet fever, at others to acute general eczema, and at still others to erysipelas. The first and last can generally be excluded by the absence of other symptoms such as the high temperature, prodromic fever, and sore throat in scarlet fever, and the burning pain and fever in erysipelas. The scarlatiniform quinine eruption sometimes begins with a decided chill, followed by high temperature and other symptoms of intense fever. The desquamation may present all the features usually considered characteristic of scarlet fever.

The *treatment* of the drug eruptions consists in stopping the administration of the drugs causing them and meeting special indications as they arise.

Gangrenous dermatitis is a rare affection in which gangrenous patches appear upon different parts of the body, usually symmetrically. The patches are most frequent upon the fingers,

but may occur on any part of the body. In a case observed by the author, the affection was limited to the hands. The disease has been described under various names, such as local asphyxia of tissues, symmetrical gangrene and Raynaud's disease. The causes are unknown. Most of the cases heretofore reported were in females, and some authorities believe that the sloughs were artificially produced. It is a well-known fact that sloughing patches have frequently been produced by the application of caustics for the purpose of malingering.

In some diseases of the central nervous system, acute bed sores occur. They are probably results of vaso-motor disturbances. In cases where injury to the main nerve trunk of a limb has occurred, gangrenous patches are sometimes observed in the area of distribution of the injured nerve. Gangrenous dermatitis, limited to the point of inoculation is not rarely observed after vaccination, especially with animal virus.

Electricity and stimulant applications are indicated, but little good can be promised from these measures.

ERYSIPELAS.

It is probable that erysipelas is in all cases due to the inoculation of a specific virus. There

is not sufficient evidence that it can develop out of a simple inflammation without the presence of its specific cause. In nearly every case, a careful search will discover some pre-existing lesion, where the inoculation may have taken place.

The face, scalp and extremities are the most frequent seats of erysipelas. In young infants a very fatal form is also liable to begin in the umbilicus.

The *symptoms* of erysipelas are high fever—the temperature frequently reaching 104°–105° Fahr., headache, coated tongue, nausea and vomiting, and in severe cases, or in nervous individuals, mental disturbance (delirium).

The skin becomes painful, red, swollen and shiny. If the case is mild, these symptoms disappear in a day or two and the normal condition of the skin and the general system is re-established. In severer cases, the fever continues, the inflammatory area extends progressively, the skin becomes boggy, and vesicles or blebs appear upon the inflamed patch. The latter may burst and thick crusts form by the drying of the effused fluid. Local patches of gangrene may occur. In the face, the deformity produced by the swelling is often very great. The effusion into the loose connective tissue of

the eyelids is often so extensive as to completely close the eyes. The ears become thickened, tense, shiny and stand out prominently from the sides of the head. All of the affected skin is exquisitely sensitive, and the lightest touch or movement causes complaints of pain. The fever and gastric disturbances continue until the violence of the disease has reached its acme, after which the symptoms progressively decrease. Unless sloughing occurs, the integrity of the skin is restored. At times, however, limited areas of solid œdema remain, especially about the lips, eyelids, and lower extremities. In some cases a predisposition to a return of the disease remains, and the patients are compelled to pass through an attack three, six or even twelve times a year. Eventually, in many of these latter cases, a condition simulating elephantiasis arabum remains.

Recent researches (Koch, Fehleisen, Orth), indicate that the disease is due to a micrococcus, which has been isolated by Fehleisen. Pure cultures of this organism injected into healthy individuals, have produced the disease.

The *prognosis* of erysipelas depends greatly upon the vital resistance of the patient. Persons of good habits, temperate, not run down by overwork, or foregoing disease, and

living amidst hygienic surroundings are very likely to recover, even from severe cases. On the other hand, persons of depressed vitality, or of dissipated habits, especially those addicted to alcoholic excesses, frequently succumb to the disease. The erysipelas of the new-born is also almost always fatal. Erysipelas occurring as a complication of vaccinia, is often of grave significance, because it is mostly an indication of a debilitated constitution in the vaccinee.

The *treatment* of erysipelas by the internal administration of tincture of chloride of iron is so often followed by marked decrease of the inflammation that I cannot doubt the good effects of this remedy. It is my practice to give it in half-drachm doses, well-diluted, every two or three hours. Irritability of the stomach sometimes interferes with this treatment for a time, but if the administration of the medicine is persisted in, and especially if a little dilute phosphoric acid and syrup of lemon are added, the stomach soon becomes tolerant of it, and it is retained. It is often useful to combine quinine with the iron.

Locally, a simple cold or hot water dressing will relieve the heat and burning pain. Lotions of bicarbonate of soda, of acetate of lead and opium, or of carbolic acid are also widely used.

The parenchymatous injection of a 2-3 per cent. solution of carbolic acid into the periphery of the inflamed area, as first recommended by Hüter, is highly thought of by some. Painting the inflamed patch with tincture of iodine is also believed to limit the spread of the inflammation. Collodion, either alone, or holding in solution iodoform, has been used, with success, in the same manner. Recently the local application of white lead paint has been highly recommended by Dr. Lewis of New York.

FURUNCLE.

A boil is an acute, circumscribed inflammation of the skin, frequently extending into the subcutaneous tissue. It usually begins as a small induration, gradually elevating the skin into a conical prominence, tender to the touch, and accompanied by severe throbbing pain. The apex of the cone is the site of a small yellowish pustule, and when this is punctured a few drops of pus escape. In some cases this terminates the morbid process and the induration gradually disappears. These are called "blind boils." In the majority of cases however, the inflammatory area extends to the size of a hazel nut, or even an English walnut. In the course of a week, the swelling becomes

boggy in the centre, the summit breaks down and a yellowish plug of dead connective tissue covered with pus, is discharged. When all the necrosed tissue has been thrown off, the cavity fills up by granulation and a small irregular scar remains to mark the site of the boil.

The *causes* of boils are, in the majority of cases, external irritants. Thus they frequently occur at the back of the neck, where they are often due to friction of a stiff, jagged collar. About the wrists they are often caused by a frayed shirt-cuff. Between the buttocks, or about the genitals they are often due to acrid discharges or other irritants. They are not rarely accompaniments of pruritic skin diseases, and are then caused by the irritation of scratching.

Boils are often an external evidence of diabetes, and when in any case, large numbers of boils occur scattered over the surface, it is well to bear this connexion in mind.

It is a common saying that boils never come singly, but always in crops. This is in large measure due to improper treatment.—The continued application of poultices, or irritant salves and plasters is often responsible for the persistence of furuncular eruptions.

The *diagnosis* presents no difficulties.

The *treatment* of boils consists in free incision, followed by warm dressing or a poultice, and the internal administration of large doses (M xx-xxx) [1.5—2.] of tincture of chloride of iron. Quinine may often be added with advantage. A brisk purge may be given at the beginning of the treatment if indicated, but the persistent administration of laxatives such as sulphur, cream of tartar and similar medicines is to be deprecated.

I have never seen any good effects from the use of sulphide of calcium or arsenic in boils, but often the reverse.

The incision of the boil should be made as soon as the diagnosis is certain. It relieves the congestion and throbbing pain, frees the way for the exit of the slough and pus, and leaves a fine linear mark instead of the irregular scar which nearly always remains if the boil has been allowed to break.

The poulticing or hot water dressing should be continued only long enough to permit the engorged vessels in the areola of the slough to become depleted. Five or six hours is usually long enough. Afterward the incision should be covered with a piece of lint smeared with carbolic acid ointment.

ANTHRAX.

Carbuncle may be described as a diffused boil with multiple openings. In all essential particulars it is identical with the affection last described. The carbuncular swelling is broader, not so elevated as, and more firmly indurated than that of a boil. Its surface is irregularly flattened. The necrotic masses are discharged through a number of openings, which have caused the top of a carbuncle to be compared to a sieve. There is usually severe pain, considerable fever, and often great depression of the system.

The *causes* are the same as those of furuncle.

The *treatment* differs in no respect from that of boils, except that it should perhaps be more energetic. In carbuncle of the lip in which the prognosis is usually considered so very grave, early incision and the free administration of iron and quinine are imperative. To delay incising the swelling until pus is discovered by fluctuation is merely tampering with the life of the patient. The dressing after incision should be actively antiseptic, in order to prevent septic absorption. Lotions of carbolic acid (5 per cent.) or of mercuric bichloride (1:2000) should be kept constantly applied.

In addition to the administration of iron and quinine for their "specific" effect, the patient should have a liberal allowance of good food and alcoholic stimulants. This is especially important in patients of advanced age, who so often succumb to this disease.

DIFFUSE PHLEGMON.

Diffuse phlegmonous inflammation of the skin, also termed phlegmonous erysipelas, is properly a cellulitis. It is most frequently observed in the forearm and the neck. The morbid process consists in a necrosis of connective tissue, accompanied or followed by lymphangitis and dermatitis. The origin of the affection is probably always septic. The type of the disease is pelvic cellulitis.

The disease begins with a chill followed by fever. The patient sometimes has recurrent attacks of chilliness, or regular periodic rigors. The affected locality becomes painful, hard and swollen. In a few days the induration gives place to a boggy fluctuation. In some cases resolution may take place even at this time, but generally the connective tissue breaks down and is converted into an ichorous pus, in which numerous fragments of broken-down connective tissue are found.

If the affected surface is extensive the strength of the patient rapidly becomes exhausted, or symptoms of septic absorption come on. When the neck is the part involved, there is deep destruction of tissue and the pus frequently gravitates into the mediastium. In fatal cases nephritis is an almost invariable complication.

The *treatment* must be conducted on surgical principles. Deep and extensive incisions to afford free exit to the necrosed tissue, and antiseptic dressings constitute the local measures. Internally, iron, quinine, and alcoholic stimulants are indicated in all cases.

MALIGNANT PUSTULE.

This is a localised gangrene due to the inoculation of the virus of splenic fever (*bacillus anthracis*). It usually appears on the hand, but sometimes also on the face. It begins as a red papule or tubercle accompanied by itching or burning. A hemorrhagic vesicle soon appears on the apex. The base becomes infiltrated to the size of a dollar or larger. This often undergoes necrosis, and if the patient escapes general infection, leaves a scar after healing.

Lymphangitis, axillary abscess, and extensive sloughing of the tissues of the arm, chest or

neck, are frequent complications, and often carry off the patient. The disease occurs especially in persons handling the hides of animals that have died from splenic fever. It is rarely observed in this country.

Absorption of septic matters sometimes occurs during dissection or post-mortem examination, either through an accidental wound, or through a slight abrasion. A localised inflammation results which may eventuate in a lymphangitis and general septic infection. Oftener, however, a hemorrhagic vesicle, or a painful tubercle appears to which Wilks has applied the term "*verruca necrogenica*."

The *treatment* consists in cauterising the point of inoculation and dressing the resulting sore with iodoform.

It is probable that the ill effects of septic inoculation can be prevented by the free use of a disinfectant solution of mercuric bichloride (1 : 1000).

HERPES SIMPLEX.

Simple herpes is usually divided into two varieties, which differ in their localisation as well as probably in causation. They are herpes of the face and herpes of the external genital organs.

Herpes of the face occurs most frequently on

the lips, at the angles of the mouth and upon the nose.

The eruption generally appears in the course of inflammatory or febrile diseases : hence called "fever blisters." It has no prognostic significance.

The eruption occurs in groups of pearly vesicles, which either dry up, leaving a thin brownish scale to fall off, terminating the morbid process ; or the vesicles are ruptured and a superficial painful erosion remains, which if seated at the labial angle, may remain for a long time and cause considerable discomfort. At every movement of the mouth, in laughing, talking or eating, the sore spot is disturbed, pain is caused and healing is delayed.

An eruption of herpetic vesicles also occurs sometimes on the mucous surface of the mouth and may cause much annoyance.

The *treatment* is simple. The constant application of a mild calomel ointment, or, if the site of the eruption is moist, dry calomel dusted on, are all the therapeutic measures necessary. The disease tends to spontaneous recovery and will always get well if not irritated or injured.

Herpes of the external genitals is rather a frequent affection. It occurs in both sexes, but is most frequent in males. It appears in little

clusters of clear vesicles situated either upon the cutaneous or mucous surface of the prepuce, or upon the glans. The tops of the vesicles soon become macerated and rubbed off, and leave small superficial erosions which sometimes are quite painful. The affection is frequently recurrent, breaking out in some individuals after every sexual intercourse. In others it only appears after intercourse with certain women, indicating that something irritant in the vaginal secretions causes the eruption. In other cases again, no connexion can be traced between the outbreak and a foregoing irritation.

When the affection occurs on the glans or mucous surface of the prepuce, or on the mucous surface of the labia the *diagnosis* between herpes and the initial lesion of syphilis is often difficult and sometimes impossible. In these cases, a delay of a few days will usually clear up the diagnosis. The irrational treatment with strong caustics to which every lesion on the genitals is subjected by so many physicians is often the cause of uncertainty in making a diagnosis.

The *treatment* consists in the application of powdered calomel, oxide of zinc or boracic acid. The vesicles should be protected from rupture by a pledget of lint or absorbent cotton. Where

the tops of the vesicles have been rubbed off, and the eroded base exposed, iodoform dusted on produces rapid healing of the sores. Sometimes the tendency to recurrence of the affection can be diminished by the regular use of astringent lotions containing tannic acid, alum, or sulphate of zinc. Cleanliness, of course, is all important.

In cases of redundant prepuce, circumcision will exert a favorable influence upon the relapsing tendency.

HERPES ZOSTER.

Herpes Zoster, or Shingles*, consists in an eruption of groups of large vesicles upon an inflamed patch of skin, generally limited to one side of the body, following the distribution of the peripheral terminations of the sensory branches of nerves, usually preceded by slight febrile symptoms, and more or less severe neuralgic pain.

It usually begins as follows : After a few days of slight febrile disturbance and neuralgia, sometimes very intense, an eruption of small erythematous spots is noticed, in the centre of which there develop small papules. In a day or two the papules have changed into vesicles,

* A corruption of the Latin *Cingulum*, a girdle, so called because in the typical form of the disease it surrounds the body, partly, like a girdle.

which are often umbilicated like small-pox vesicles, the contents of the vesicles either dry into thin crusts, or change into pustules, which sometimes leave slight scars, resembling somewhat the pits in small-pox. In from two to four weeks the crusts have fallen off, leaving the skin in its normal condition, or else the scars just referred to may remain to mark the site of the eruption. The pain is usually most severe and persistent in old persons. In children it is sometimes entirely absent, merely a slight soreness being felt.

Shingles is a self-limited disease, and occurs, as a rule, but once in a lifetime.

The severe neuralgia may last weeks, months, or even years after the disappearance of the disease.

The *cause* of shingles is still a matter of discussion. The regularity of distribution of the eruption and the pain first led Von Bärensprung to attribute it to nerve lesions. Rare opportunities for post-mortem examinations in cases of shingles, revealed hyperemia or inflammation of the corresponding cutaneous nerves in continuity, or some structural alteration in the ganglia. The cause of the disease in the nerves in some cases is traumatism; thus zoster sometimes occurs in consequence of injuries to the

cutaneous nerves or ganglia. But in the majority of cases, the neuropathy has been looked upon as spontaneous.

Contrary to most dermatologists the writer believes that shingles should be classed with the acute infectious diseases. Points in favor of this view are

1. The strictly self-limited character of the disease, and its tendency to spontaneous recovery after a slightly varying duration.

2. The constant occurrence of more or less well-marked prodromic symptoms.

3. The character which it possesses, with the other specific diseases, of occurring but once (generally) in a lifetime.

4. The uselessness of attempts to "cut short" the disease by therapeutic measures ; and,

5. The well-attested quasi-epidemic character of its prevalence at times.

Erb, Landouzy and Gerne have recently adopted this view, which was first distinctly proposed by myself, in a paper published in the *Archives of Dermatology*, for July, 1877. No other theory so readily accounts for the pathogeny of herpes zoster.

Herpes Zoster is localised according to the distribution of the cutaneous nerves ; thus in the face it generally follows the distribution of

the 5th or 7th which latter receives sensory branches from the 5th. When it occurs in the course of the ophthalmic branch of the 5th there are usually intense pain and inflammation of the eye, which may lead to disorganisation of that organ.

Zoster may be conveniently subdivided into *facial* where the distribution is as just described. *Occipital*, following the ramifications of the 3rd cervical, which gives off the occipitalis minor, auricularis magnus and subcutaneus colli. Among the other local forms, the *cervico-subclavicular* follows the distribution of branches of the 4th cervical, supplying the clavicular and sub clavicular regions, shoulder and upper part of the back.

Cervico-brachial follows the distribution of branches of the four lower cervical and two upper dorsal nerves, and occupies the neck, shoulder, or upper extremity.

Dorso-pectoral follows the distribution of 3, 4, 5, 6 and 7 dorsal (intercostal) nerves. Before it breaks out the malady termed intercostal neuralgia frequently exists for some days. It is the most frequent variety of zoster, and from it and the following division the name *zoster*, a belt,* is derived.

*See note, page 47.

Dorso-abdominal zoster follows the distribution of the 8-12 dorsal and 1st lumbar nerves, extending in a beautiful zone of vesicles from the spine to the linea alba.

Lumbo-inguinal follows the distribution of the 1 and 2 lumbar nerves and anastomosing branches, being most frequently confined to the inguinal region.

Lumbo-femoral follows the distribution of the 2, 3 and 4 lumbar nerves, occupying buttock, hip, thigh or leg. *Sacro-ischiadic* and *genital* occurs upon the penis, scrotum, or in the female, the vulva and the perineum.

The *prognosis* in herpes zoster, so far as the eruption is concerned is favorable. The neuralgia accompanying it is however frequently very persistent.

The *treatment* is extremely simple. Protecting the vesicles from rupture by covering them with cotton batting; dusting powder of starch or chalk, containing morphia or camphor to relieve pain. For the same purpose, hypodermic injections of morphia or atropia in the track of the nerve. Large doses of quinine have been recommended. Recently phosphide of zinc $\frac{1}{12}$ to $\frac{1}{4}$ gr. [.005-.01] 3 times a day has been used, internally in the form of pill, and, it is asserted with success in relieving the pain.

For the neuralgia which is sometimes so persistent after the eruption has disappeared, arsenic, belladonna or locally, electricity may be used. In patients with broken-down health, the measures appropriate in such cases : good food, fresh air, exercise, and iron and quinine should be directed. The regular and proper use of the constant current promises most success in relieving the pain.

DERMATITIS HERPETIFORMIS.

This is a rare disease which has been described by several authors but most thoroughly studied by Duhring from whose writings on the subject the following account is condensed. The disease may appear in various types, erythematous, papular, vesicular, bullous, pustular, or a combination of all of these.

In severe cases prodromata are usually present for several days preceding the cutaneous outbreak, consisting of malaise, constipation, febrile disturbance, chilliness, heat, or alternate hot and cold sensations. Itching is also generally present for several days before any sign of efflorescence. Even in mild cases slight systemic disorder may precede or exist with the outbreak. This latter may be gradual or sudden in its advent and development. Not infrequently it is sudden, one or another manifestation break-

ing out over the greater part of the general surface diffusely or in patches in the course of a few days, accompanied by severe itching or burning.

A single variety, as for example, the erythematous or the vesicular, may appear, or several forms of lesions may exist simultaneously, constituting what may very properly be designated the multiform variety. The tendency is, in almost every instance to multiformity. There is, moreover, in almost every case a distinct disposition for one variety, sooner or later, to pass into some other variety; thus for the vesicular or pustular to become bullous or *vice versa*. This change of type may take place during the course of one attack or on the occasion of a relapse; or as is often the case, it may not show itself until months or years afterward. Not only multiformity of lesion, but irregularity in the order of development, is the rule, whether during an attack or later in the course of the disease.

Itching, burning or pricking sensations almost always exist. When the eruption is profuse they are intense, and cause the greatest suffering. As in the case of eczema, before and with each outbreak they become most violent, abat-

ing in a measure only with the laceration or rupture of the lesions.

The disease is rare, but is of more frequent occurrence than formerly supposed. The natural history of the disease is interesting. The process is in almost all instances chronic, and is characterised by more or less distinctly marked exacerbations or relapses, occurring at intervals of weeks or months. The disposition to appear in successive crops, sometimes slight, at other times severe, is peculiar. Relapses are the rule, the disease in most cases extending over years, pursuing an obstinate, emphatically chronic course. All regions are liable to invasion, including both flexor and extensor surfaces, the face and scalp, elbows and knees, and palms and soles. Excoriations and pigmentation, diffuse and in localised areas, are in old cases always at hand in a marked degree. The pigmentation is usually of a mottled, dirty-yellowish or brownish hue, and is persistent.

The *treatment* is symptomatic. The itching generally requires measures for its relief. Locally, the preparations of sulphur and tar may be used with good effect. Internally, arsenic in small doses, combined with iron and quinine, sometimes seems to be useful.

PSORIASIS.

Psoriasis is a chronic disease of the skin characterized by the excessive formation of pearly, white scales seated upon a reddened, somewhat elevated base. On detaching the scales with the finger nail, the denuded spot bleeds slightly.

The disease begins with punctiform reddish spots, the tops of which become covered in a day or two with minute collections of white scales. These efflorescences are always multiple. They increase peripherally, and soon attain the size of a split pea, or lentil, when they look very much as if drops of mortar had been spat-tered upon the skin. The peripheral increase continues, so that the individual lesions become discs of the size of various coins. The individual patches may now run together forming irregular-figured patches of various sizes.

The development of new points of efflorescence continues, so that in a case of some duration, all the differently-sized lesions may be present.

When involution of the patches occurs, the scales disappear from the centre leaving a slightly elevated, more or less red or grayish pigmented spot, while the scale-covered border

may continue extending peripherally. The pigmentation finally disappears, leaving no scar to mark the site of the eruption.

The only subjective symptom attending an outbreak of psoriasis is itching, which is seldom very intense. In rare cases it is, however, exceptionally severe. It is most marked in the beginning of the disease.

The anatomical changes consist principally of an enormous hyperplasia of the Malpighian layer of the epidermis, with secondary hyperemia and exudation in the corium, especially the papillary layer. The epithelial hypertrophy may extend downward, invading the cutis, and in very exceptional instances (White) lead to cancerous degeneration of the affected skin.

The eruption is usually symmetrical, and no portion of the skin is exempt, but it is especially localised on the extensor surfaces of the limbs and trunk, over the sacrum, and upon the hairy scalp. The palms of the hands and soles of the feet are only very rarely affected. In nearly all cases the elbows and knees are the seats of large, thick patches.

Upon the scalp, the accumulation of scales is often enormous, a thick crust being formed, which covers the entire head. There is usually a hyperemic band extending crown-like around

the head, beyond the hairy border. When it affects the ears it may produce functional deafness by causing an accumulation of scales in the auditory meatus.

The nails are sometimes attacked, becoming dry, brittle, roughened, and lustreless.

Bearing the principal features of psoriasis in mind, the *diagnosis* in most cases should not be difficult. In some instances, however, no little difficulty arises in differentiating it from diseases presenting like appearances.

Seborrhœa of the scalp often presents a condition very similar, at first glance, to psoriasis. In the former, however, the scales are greasy and dirty-looking, and there is often falling out of the hair. The abrupt curved border is also wanting in seborrhœa, in which the redness is generally less marked, and shades off insensibly into the normal skin.

Scaly eczema may sometimes resemble psoriasis so nearly as to make an exact diagnosis impracticable for some time. By carefully watching the progress of the disease, however, the differentiation can usually be made. In eczema, there will often be moist patches interspersed among the scaly spots, and there will be yellowish crusts and scabs in addition to the scaliness. In psoriasis, exudation of

fluid upon the surface, and crusts are absent. The well-defined outline is also wanting in eczema.

The squamous syphilide may sometimes be mistaken for psoriasis. The eruption in syphilis is generally more copiously distributed on the flexor than on the extensor surfaces, and is especially liable to occur in the palms of the hands. On scraping off the scales in the syphilitic eruption there is no bleeding. The red color in psoriasis is due to hyperemia of the cutis and disappears under pressure. In syphilis it is due to an infiltration, is not so bright-colored, and does not disappear under the finger. In scaly syphilis there are nearly always scaly patches in the palms of the hands. In psoriasis the palms are very rarely affected.

Ringworm of the scalp sometimes resembles patches of psoriasis very closely. In ringworm, however, the hairs are nearly always affected, being dry and broken. The bright-red base of the psoriatic lesions is also wanting in ringworm.

The *prognosis* is favorable so far as any individual attack is concerned. But in psoriasis there is always a peculiar predisposition of the skin, which we cannot, with our present knowledge, eradicate. Hence, it is the rule for

psoriasis to recur at a variable interval. For this reason we can never promise any patient a *cure* in the strict sense of the term.

The *treatment* of psoriasis must be both constitutional and local. Among the internal remedies the first place belongs to arsenic.

The form in which this medicine is given is of some importance. Fowler's solution (liquor potassii arsenitis) often produces nausea on account of its taste. This tendency is easily overcome by giving the medicine in a teaspoonful of sherry wine. The proper dose of Fowler's solution to begin with is 3-5 drops three times a day. It should always be taken with, or immediately after meals. The dose should be very gradually increased until the limit of physiological tolerance is established. It is my practice to add one drop to the daily dose every third day until slight puffiness of the eyelids, or redness of the conjunctivæ come on. The dose should then be slightly diminished, and its effect on the disease noticed. It will generally be found that in scaly diseases, improvement has begun even before the limit of tolerance has been reached. The medicine can be continued indefinitely without bad effects. No danger need be apprehended of "cumulative doses,"

arsenic being rapidly eliminated from the system.

Pearson's solution (liquor sodii arseniatis) is also used sometimes, but has no advantage, so far as I know, over the preparation above mentioned. It may be given in doses of ten drops, gradually increasing until the desired effect is produced.

De Valangin's solution (liquor arsenici chloridi) is one of the best of this class of preparations. It may be made extemporaneously by dissolving one grain of arsenious acid in one fluid ounce of water and adding half an ounce of dilute hydrochloric acid. This may be given in fifteen-drop doses in sweetened water after each meal. The dose can be increased by adding one drop to each dose every other day. The acid acts as a digestive tonic, which is often indicated in diseases benefited by arsenic.

Arsenic may also be administered in the form of pills. The *pilule Asiaticæ* have long been esteemed as an efficient preparation in psoriasis. They consist of arsenious acid and black pepper. The following formula, suggested by Duhring, may be used :

R :—Acidi arseniosi, gr. ii [.13]

Pulv. piperis nigr.

Pulv. glycyrrhizæ, aa gr. xxxii. [2.]

M. Ft. pil No. xxxii.

S : One three times a day.

From considerable personal experience, I am firmly convinced of the great value of arsenic when properly administered. Its unquestionably specific action in modifying the epithelial tissues renders it an especially appropriate remedy in psoriasis, and in fact all chronic scaly skin diseases. In some cases of psoriasis it will produce a complete disappearance of the eruption without any local measures whatever. It must be confessed, however, that local treatment alone is competent in many cases to remove the lesions, especially if the outbreak is not very extensive.

I believe I have seen good effects follow the administration of alkaline diuretics either as the only internal treatment, or as precedent to a course of arsenic. The preparation preferred is the acetate of potassium, which I usually order in the following combination :

R :—Potassii acetatis, $\bar{\text{ss}}$ i. [o.—]

Ext. fl taraxaci $\bar{\text{ss}}$ ii [6o.]

M. S : Teaspoonful three times a day in a tumblerful of water.

Carbolic acid, 4-5 grains, three times a day,

made into pills, with powdered licorice, has been recommended, but the benefit derived from it is very slight.

The local measures of treatment may be divided into the preparatory and curative. To the former belong water (baths, lotions) and soap, while in the latter category are included tar, sulphur, naphthol, mercurial preparations, chrysarobin, pyrogallol and salicylic acids.

Baths and lotions, either of pure water, or rendered alkaline with carbonate of soda, are useful in removing the accumulated scales or patches of psoriasis. Their employment should be combined with soap, and friction, in order to free the surface of scales and allow the remedial application to be made directly to the diseased skin. The frictions with soap and water should always precede the application of whatever medicament is used.

Tar has always enjoyed a high reputation as an external remedy in psoriasis. It is employed either pure, or in ointment, or alcoholic solution.

Dr. Bulkley has introduced an alkaline solution of tar which is soluble in water, and which is frequently of great value in the treatment of psoriasis. It is prepared according to the following formula :

℞ :—Picis liquidæ ʒ ii [60.]
 Potassæ causti. ʒ i [30.]
 Aquæ ʒ v. [150.]

Dissolve the potash in the water and add slowly to the tar, in a mortar, with friction.

This may be applied to indurated patches in full strength as above, or diluted with an equal part of water. It should always be followed by some soothing ointment, such as oxide of zinc or calomel ointment.

As a substitute for tar, naphthol has been used by Kaposi and others. It may be employed in ointment (3ss-i : ʒ i;) [1:8—1:16] or in alcoholic solution (ʒ i : ʒ i) [1:8]. Its advantages over tar are that it has no decided odor, and does not discolor the skin or clothing. At the same time it appears to be much less efficient than tar.

Sulphur is a remedy of value in psoriasis. It is sometimes employed with good effect in the form of the solution of sulphuret of lime, known as Vleminckx's solution. The formula for this is as follows :

℞ :—Calcis vivæ, ʒ ss. [16.]
 Sulphuris sublim., ʒ i. [30.]
 Aquæ, ʒ x. [300]

Boil the mixture until it measures four fluid ounces, [120.] and filter.

The patches are rubbed with this until slight bleeding results, when the solution is washed off with water, and a soothing ointment applied for several days until the irritation has subsided. If the infiltration has not disappeared the same procedure may be repeated. This method of treatment, although very effectual, is painful and should not be applied over large surfaces at a time. It is only required in old cases where the infiltration is deep and extensive.

One of the most efficient applications is chrysarobin. It may be ordered in ointment ($\mathfrak{D}\text{i}-\mathfrak{Z}\text{i} : \mathfrak{z}\text{i}$) [$1 : 24-1 : 8$], or better in collodion, or solution of gutta percha in chloroform, which is painted on the patches daily or every other day. The strength of this paint may be varied from five to twenty per cent. It has the advantage over ointments of being dry, cleanly and immovable.

A caution must be added against using a strong application of chrysarobin about the head and face. It stains the skin and hair of a reddish-brown, and not infrequently causes an erysipelatous inflammation in the vicinity of its application. It also indelibly stains linen.

Pyrogallic acid applied in the same manner as chrysarobin is also often effectual in psoriasis.

It stains the skin black, and if applied over a large surface at a time may cause symptoms of poisoning (strangury, dark-colored urine, etc).

Salicylic acid in solution in collodion (10 to 20 per cent.) is useful at times, especially in mild cases.

For psoriasis about the face and scalp, I have always used with good effect, the ointment of ammoniated mercury (3 ii : ʒ i) [1 : 4]. In the milder degrees of psoriasis it nearly always produces a rapid disappearance of the lesions. It should not be applied over too large a surface of the skin at a time, as it may be absorbed and cause symptoms of mercurial poisoning.

The treatment of psoriasis is often unsatisfactory, and when after long and earnest endeavor, the patient has been freed from his disease, a renewed outbreak of the eruption usually appears in the course of a few months, or a year or two. A permanent cure can never be safely promised.

EXFOLIATIVE DERMATITIS.

I venture to class under this title several affections differing in their clinical features, but having as a common symptom superficial inflammation of the skin, with furfuraceous or laminar desquamation of the epidermis.

Exfoliative dermatitis may be acute or chronic, general or local.

I.—ACUTE EXFOLIATIVE DERMATITIS OF INFANTS.

In text-books on skin diseases may be found accounts of a fatal affection which is described under the name of "Acute Pemphigus." The disease attacks young children only, runs a rapid course, and is in the majority of cases terminated by death. Hebra, and most dermatologists of his school, emphatically deny the occurrence of pemphigus in an acute or epidemic form.

Von Ritter has described the disease under the title at the head of this article. He observed 297 cases in the course of ten years. The mortality was about 50%.

The children attacked were nearly all between two and five weeks old. There is usually a prodromal stage manifested by abnormal dryness of the integument with desquamation of the epidermis, in the form of fine branny scales. The skin of the lower part of the face, especially about the angles of the mouth, becomes red and slightly tumid. The margin of the redness, which rapidly spreads, is indistinct, not being sharply defined against the healthy skin. At the same time the skin at the angles

of the mouth becomes fissured and covered with scabs. The mucous membrane lining the pharynx and buccal cavity is reddened and the palatal arch is the seat of superficial erosions, covered by a grayish-white exudation.

The appetite and digestion of the infant remain unimpaired, and there is no increase of temperature. The redness and thickening of the skin extends over the entire body. The face becomes covered by yellowish translucent scabs upon a reddened base, intersected in various directions by fissures. The skin becomes wrinkled and the upper layer separates from the cutis. The epidermis may be detached in large flakes, or is cast off spontaneously. This process continuing until the entire surface is denuded of epidermis, presents an appearance similar to that following an extensive scalding. In favorable cases the dark raw-flesh color of the cutis soon gives way to a lighter red, and in some cases the normal color of the skin is restored in 24 to 36 hours. In unfavorable cases, on the other hand, the color is a dirty brownish red, and the cutis becomes dry and parchment-like. In those cases which terminate in recovery, the normal condition is entirely re-established in a week or ten days, the skin

for a few days being covered by a fine branny desquamation.

As *sequelæ* of the disease, eczemas of considerable extent, or pea-sized and larger, superficial boils and abscesses, sometimes in large numbers occur, and delay complete recovery. At other times extensive phlegmonous infiltrations occupy considerable tracts of skin, and may result in gangrenous destruction of tissue and death. In the latter conditions pneumonia and colliquative diarrhœa not rarely precede the fatal termination.

Relapses are infrequent. When they occur the disease is of a milder type than originally.

The disease seems to be a manifestation of septicemic infection, principally localised upon the external integument.

The *diagnosis* is easy, no other disease being liable to be mistaken for it. In erysipelas, which sometimes affects infants in a similar manner, there is always considerable elevation of temperature; this symptom is absent in exfoliative dermatitis. In pemphigus there are blebs surrounded by a reddish border, separated from adjoining blebs by healthy integument. In exfoliative dermatitis the redness and thickening are progressive and occupy finally the entire surface.

The post-mortem appearances present nothing characteristic. The etiology is unknown. The disease is not contagious. There are no known means of prevention.

The *treatment* is purely symptomatic. Sufficient nourishment of the infant at the breast is of the first importance. Pure air, the room not kept too warm. Locally, cool baths, drying the skin with fine soft cloths and carefully avoiding friction will meet the indications in most cases. Ragged and loose patches of epidermis should be clipped off with the scissors, and all denuded and fissured surfaces dusted with finely powdered calomel. The crusts which accumulate at the angles of the mouth and render nursing difficult and painful, are best gotten rid of by soaking them with oil of sweet almonds and carefully removing the loose ones by means of a dressing forceps. Baths of oak bark (80-100 grammes to one litre of water) one-half of this decoction to be added to each bath, are sometimes useful. In uncomplicated cases no internal medication is necessary. All complications of course should receive appropriate treatment.

II.—BULLOUS EXFOLIATIVE DERMATITIS.

In another form of exfoliative dermatitis, the epidermis is slightly raised over greater or less

areas by collections of serous or sero-purulent fluid. This finally dries up, or escapes through ruptures in the epidermis, and the latter is detached in papery flakes. The surface of the skin under the exfoliating epidermis, resembles that described above (p. 67). This form of the disease is generally described in dermatological works as *pemphigus foliaceus*. It is sometimes acute, but more frequently chronic. It is usually a disease of early life, although occasionally observed in adults.

The *prognosis* in this disease is usually grave. The strength gradually gives way, and the patient dies under all the manifestations of exhaustion.

The *treatment* must be guided by the condition of the patient. The exposed skin must be protected by some bland, fatty application. A paste of finely powdered starch and vaseline, equal parts, may be freely applied. Internally roborant remedies, iron and cod liver oil, will be indicated. Arsenic in small doses may be tried. Inunctions of cod liver oil will be useful.

III.—CHRONIC GENERAL EXFOLIATIVE DERMATITIS.

This is a rare disease, first accurately defined by Hebra, who named it *Pityriasis rubra*. There is deep-red discoloration of the skin, little

infiltration, no exudation on the surface, and absence of papules, vesicles or fissures. The epidermis is constantly exfoliated from the entire surface, in large papery scales. The subjective symptoms are slight, the itching being usually very moderate. In course of time (months or years) the skin becomes dry, harsh, loses its elasticity and pliability, the hairs fall out and the nails become cracked and deformed. The patients generally die of progressive exhaustion or succumb to some intercurrent disease.

The administration of quinine sometimes causes an acute, general scaly eruption, resembling somewhat exfoliative dermatitis.

The *prognosis* is grave. Few patients recover from the disease.

The *diagnosis* from general eczema is not difficult. In eczema there are always moist patches, there is usually infiltration and the entire surface of the skin is rarely attacked. In general exfoliative dermatitis, there is sometimes not the smallest patch of healthy skin remaining. No other disease is likely to be mistaken for it.

No *treatment* has hitherto been found of any value. Inunctions of almond, raw linseed or cod liver oil promise best results. Internally

iron and good food are indicated to counteract the tendency to exhaustion.

IV.—LOCAL EXFOLIATIVE DERMATITIS.

This disease has been described as a pityriasis (furfuraceous desquamation) occurring in small round spots and larger circinnate patches. The color of the lesions is a pinkish or rose tint, and the spots are covered with fine white scales. There is sometimes slight itching but no other subjective symptoms. The patches are not infiltrated. The chest and neck appear to be the sites of predilection, but in one case observed by the writer, the face was especially affected. According to Duhring, the disease usually lasts from four to six weeks. The general appearance and course of the affection recalls the vegetable parasitic skin diseases, but no characteristic fungus has yet been discovered.

The *treatment* consists in the application of mild ointments, such as calomel, (3ss : $\frac{3}{4}$ i) [1 : 16] or yellow oxide of mercury (gr. x : $\frac{3}{4}$ i) [1 : 50] or salicylic acid (gr. v : $\frac{3}{4}$ i) [1 : 100]. Internally no treatment is required.

LICHEN.

Lichen occurs in the form of flat, or acuminate, red papules seated upon normally colored

skin. The eruption may be discrete or aggregated. Two varieties are described, the plane and the acuminate. The disease is rare, about one case being observed in 500 cases of skin disease of all kinds.

The plane variety appears as crimson, flattened, or even slightly umbilicated papules, angular in outline, usually discrete, though sometimes aggregated in disk-shaped groups. The localities in which it is oftenest found are the flexor surfaces of the forearm, the calves of the legs, the thighs, the penis, and scattered about the trunk. The acuminate variety consists of pin-head sized, conical, firm papules, capped with a hard dry mass of epidermic scales which convey a rough sensation to the hands when passed over the affected surface. In the most aggravated form these papules become closely crowded together until they present almost a uniform red sheet of eruption. This is however exceedingly rare in this country.

When the eruption disappears, either spontaneously or as the result of treatment, a dark slaty pigmentation remains for some time.

There are generally no marked subjective symptoms. Itching is sometimes present however, and may be a prominent symptom.

The disease differs from papular eczema in

always preserving the papular form, which is the only lesion present. In eczema there are nearly always some of the other manifestations of the disease. The itching is usually less intense in lichen.

The dark, slaty pigmentation is also characteristic. In psoriasis the pigmentation is usually less persistent. The flattened or umbilicated summits of the plane variety are so characteristic that little difficulty can arise in the diagnosis.

In the milder cases, the *prognosis* is favorable. In those cases, however, where a large surface is covered by the eruption the patients frequently die from marasmus.

In the *treatment*, arsenic claims the first place. It should be given until the full physiological effects are manifested, when the disease will usually be found to yield. Tonic medicines will be needed in many cases.

The itching, when present, can often be allayed by alkaline baths, or lotions containing carbolic acid. In the more localised forms of the eruption ammoniated mercury ointment is sometimes of benefit.

Scrofulous lichen is described by German authors, but has not been observed in the United States. The papules are small, pale red,

or yellowish ; sometimes scaly, and do not itch. The internal and external use of cod liver oil never fails in curing the disease.

PRURIGO.

Prurigo is an exceedingly rare disease in this country. The proportion of prurigo to all cases of skin disease reported to the American Dermatological Association is about one in ten thousand. The disease appears as a papular eruption, generally beginning in childhood, attacking by preference the extensor surfaces of the limbs, and never the face or palms of the hands. The flexor surfaces of the joints also generally remain free from the eruption.

The itching is intense. In no other disease does this symptom approach in severity the itching of prurigo.

The disease is differentiated from lichen by the isolated character of the lesions, and from eczema by the absence of exudation upon the surface (unless an artificial eczema has been produced by the scratching) and the persistence of the papules throughout the duration of the disease. The summits of the papules are often covered by small brown crusts, the result of excoriations produced by the finger nails in scratching.

The *prognosis* is gloomy. A permanent cure is not to be hoped for, and even temporary relief is difficult to secure.

The *treatment* must be palliative. Ointments containing tar and sulphur may be used with good effect. Latterly ointments or lotions of naphthol (5-10 per ct.) have been found to give relief. Happily few practitioners in the United States are liable to be called upon to treat this terrible disease.

ATONIC PUSTULAR ERUPTIONS.

Pustular eruptions will usually be found in individuals who are anemic, or in otherwise vitiated health. Excluding pustular eczema, syphilis, or pyemia, a certain number of cases of pustular eruptions will be met with which can not be definitely ranged under one heading. In most text-books they are described under the titles "impetigo" and "ecthyma," but many modern dermatologists discard these terms altogether. These eruptions are usually due to local irritations in debilitated subjects. The pustules are from a pin-head to a pea, or even a large bean in size, flat, or slightly convex, with inflamed borders. When they are ruptured, they leave shallow ulcers with a grayish unhealthy-looking base. The pustules may be

disseminated over the entire body, but are in most cases localised. In adults they are most frequently found upon the legs. I have noticed them especially in sailors and other persons similarly exposed, and who were, in addition, overworked and underfed. In many of the cases which have come under my notice, a slight sponginess of the gums, suggesting a scorbutic tendency has been observed. In badly nourished children the pustules are not seldom seen upon the face and hands.

The *treatment* of these atonic pustular eruptions and their sequelæ, the superficial ulcers, is simple and promptly effectual. Cleanliness, dry clothing, a dry, comfortable bed, fresh air, good and sufficient food and rest will often produce a cure without any medicine. Tonic medication will, however, be advisable generally. As a medicine, tincture of chloride of iron in doses of 20-30 minims three or four times a day will fulfil all the indications.

Locally, carbolic acid ointment, or the ointment of oxide or oleate of zinc, or carbonate of lead will promote healing of the slight ulcerations.

CONTAGIOUS IMPETIGO.

This disease was first described by the late Dr. Tilbury Fox, in 1862. It generally appears

in the form of vesico-pustules or blebs varying in size from a pea to a Lima bean. The blebs rise abruptly from a non-inflammatory base, and usually appear as if only partly filled with fluid. The fluid which is at first clear, rapidly becomes changed into a thin, milky pus. This is soon absorbed, or dries with the roof of the bleb into a thin brownish crust with turned up border, lightly adherent at the centre, looking as if "stuck on," as Fox expressed it.

The eruption usually first appears upon the face or hands, and being auto-inoculable, may be transferred to other portions of the body. It is very contagious and usually effects all the children of the same family. It rarely attacks adults, but may be inoculated upon them, as I have shown experimentally.

When the scabs fall off, a brownish surface remains, which gradually fades away. The disease runs its course in from two to four weeks.

The lesions are usually discrete, but sometimes a number of the blebs run together forming a larger patch which may resemble eczema; the latter disease may also be produced by scratching or improper treatment.

In uncomplicated cases the *diagnosis* is usually easy. Contagious impetigo is sometimes mistaken for pemphigus, but the

peculiar character of the crusts in the former, and the chronic nature of the latter disease, will suffice to distinguish the two affections.

The disease is spread by contact. It is believed by some to be caused by a parasitic growth. Fox seems to have regarded it as an infectious disease. Its cause is unknown.

The *treatment* consists in cleanliness, removal of the crusts, and dressing the surface with oxide of zinc or a weak ammoniated mercury ointment (gr. v : $\bar{3}$ i) [1 : 100]. If the child is badly nourished tincture of chloride of iron and cod liver oil will be useful. Patients with contagious impetigo should be isolated to prevent spreading of the disease.

PEMPHIGUS.

Pemphigus is a chronic disease of the skin, characterised by the outbreak of blebs, varying in size from a small bean to a hen's egg, or larger, generally appearing in crops, and accompanied by more or less febrile disturbance.

This definition sufficiently characterises pemphigus, and marks it as a disease standing by itself. It is not merely an eruption of blebs, but successive crops of these blebs appear. The blebs of pemphigus rise abruptly from the

sound skin ; have no inflammatory areola, and are, in most cases, tensely filled with a clear, yellowish—sometimes purulent—fluid, or at times contain blood.

In a few days, the fluid is reabsorbed ; the roof of the bleb, with some of its contents, dries into a thin scale, which, when removed, leaves a reddened, but otherwise apparently healthy base. If, by means of the prick of a needle, or otherwise, the contents of the bleb are discharged, the latter collapses, and dries up, as in the last instance. Unless irritated by mechanical means or stimulating applications, pemphigus blebs rarely contain pus, and no ulceration takes place at their base ; hence uncomplicated pemphigus leaves no scars. The blebs consist of single cavities, not subdivided into compartments, as are the pustules and bullæ of smallpox in their earlier stages.

Diagnosis. The disease probably most frequently mistaken for pemphigus is contagious impetigo. There can be little doubt that many cases of "acute pemphigus," in which the patients recover, or epidemics of pemphigus are really cases of contagious impetigo.* The resemblance is sometimes very close

* The grave variety of so-called "acute pemphigus" has been described under the title : "Acute Exfoliative Dermatitis of Infants." See p. 66.

and only a careful investigation will disclose the true nature of the disease in many instances. If the characteristic marks of the two diseases are remembered, however, no mistake should occur.

In a number of cases of erysipelas, frost-bite, burns and scalds, the application of cantharides or mezereon, bullæ appear on the affected part. Here pemphigus can always be excluded by the presence of the uniformly reddened or inflamed base upon which the blebs appear.

In the later stages of acquired syphilis a bullous eruption sometimes appears, which is termed by some authors, "syphilitic pemphigus." The name is misleading, as the eruption of bullæ is the sole point of resemblance. The bullous syphiloderm, as this affection is more properly termed, is differentiated from pemphigus, by an inflammatory areola surrounding the base of the bleb, which becomes purulent, the contents drying into a greenish-brown scab seated upon an ulcerated base, constituting what is called rupia. The bullous syphiloderm is more frequent in children as a manifestation of inherited syphilis.

The early stage of true leprosy is frequently accompanied by an eruption of bullæ. In this disease, however, some hyperesthesia, followed

by anesthesia of the spots occupied by the blebs generally precedes the eruptions. Other concomitant symptoms of grave involvement of the constitution will also be present, and enable the physician to exclude pemphigus.

Smallpox may cause a difficulty in diagnosis—a difficulty which is perhaps more serious than that presented by most other diseases, on account of the results which may ensue if a case of the former should fail to be recognised. In smallpox, however, the blebs always contain pus or blood; are not simple cavities, but subdivided into compartments: are seated upon an inflamed base, and followed by ulceration and loss of substance. The prodromic symptoms of smallpox can also usually be verified in the latter disease: these do not occur in pemphigus.

In rare cases of exudative erythema, large blebs sometimes occur as one of the multiform manifestations of this disease. The accompanying papules and the generally present patches of diffused red or brownish discoloration will serve to distinguish the affection. The so-called herpes iris, which has doubtless sometimes been mistaken for pemphigus, is now generally regarded as merely one of the forms of exudative erythema.

In some rare cases of urticaria, the summit of

the wheal is occupied by a bleb, which may simulate the bullous eruption of pemphigus. The presence of other wheals, the urticarial irritability of the skin, and the intense itching in nettle-rash, will serve to distinguish it from pemphigus.

Charcot has pointed out that a bullous eruption sometimes occurs in consequence of nerve-lesions. These eruptions may appear consecutively, simulating the recurrent eruptions in pemphigus. Scars remain in these cases, however, to mark the seat of the blebs, which is an exceedingly rare result in pemphigus. In the latter disease, also, the eruption would not be so strictly limited to the area supplied by an injured nerve.

Scabies is occasionally accompanied by large bullæ. The presence of papules, pustules, furrows and excoriations, accompanied by severe itching, and the acarus, discoverable with a lens, would exclude pemphigus.

An important, possibly frequent, and certainly rarely recognised cause of bullous eruptions, is the ingestion of certain medicines. Arsenic, potassium bromide and iodide, quinine, copaiba, and phosphoric acid, have been followed by bullous eruptions, more or less resembling pemphigus. It should in all cases of doubt be

ascertained whether such medicines have been taken, before deciding upon the diagnosis.

It needs to be added that the practitioner must be constantly on his guard against being victimised by feigned bullous eruption. *i. e.*, eruptions of blebs caused by the designed application of chemical or dynamical irritants to portions of the skin with intent to deceive. Hysterical women are, of course, the most frequent offenders in this respect, but it must not be forgotten that men sometimes malinger by feigning various formidable skin eruptions. The methods by which bullæ are produced artificially consist in the application of hot iron, sinapisms, cantharides, strong acids or alkalies, and perhaps in some instances, prolonged pressure. The possibility of this occurring must be constantly borne in mind in order to avoid being discomfited by a malicious or dishonest patient.

The *causes* of pemphigus are unknown.

The *prognosis* is generally favorable. While relapses are exceedingly liable to occur, individual attacks can usually be controlled by proper treatment. When the eruption is very extensive however, the patient may succumb to the disease.

Treatment. Arsenic appears to be almost a

specific in pemphigus. The medicine must be given in full doses and freely pushed. Fowler's solution may be given in eight to ten drop doses, three or four times a day. It should be given in sherry wine, as it is better borne by the stomach than when diluted with water. Quinine is also useful. Good food and proper hygienic surroundings are important adjuvants to the treatment.

Locally, much may be done to increase the comfort of the patient. The blebs should be punctured and the affected parts may be bathed with a lotion of carbolic acid (10 gr : $\bar{3}$ i) [1 : 50] or black wash. Various dusting powders may also be used. When itching is severe, Bulkley's liquor picis alkalinus diluted with 6-10 parts of water will often give relief. Bran or gelatine baths are sometimes useful.

In some cases ointments such as Hebra's or oxide of zinc ointment, applied on cloths, gives more relief than baths or lotions.

Exfoliative pemphigus has been described on page 69, under the title: "Bullous Exfoliative Dermatitis."

HEMORRHAGES.

Cutaneous hemorrhages are either traumatic or symptomatic. The former are such as result from mechanical injuries or the bites or stings of insects. Flea-bites sometimes cause minute extravasations of blood in the cutis, which are of importance merely on account of the liability of mistaking them for other and perhaps graver troubles. The hemorrhagic spots are surrounded by an erythematous areola, and are generally attended by considerable itching.

SYMPTOMATIC CUTANEOUS HEMORRHAGES.

I.—PURPURA.

Three varieties of purpura are usually described, viz : the simple, rheumatic and hemorrhagic. The first and third probably differ merely in degree, while rheumatic purpura seems to be an outward expression of the blood-change produced by the rheumatic diathesis. The cutaneous manifestations differ very slightly.

Simple purpura generally appears without con-

stitutional disturbance. The eruption consists of "small, distinct, purple specks or patches," varying from a pin-head to a split pea in size. They may be disseminated over the surface, but are usually most numerous upon the lower extremities. There are no subjective symptoms unless the eruption is accompanied by nettle-rash, as sometimes happens.

The *prognosis* is favorable. No *treatment* is necessary unless the general condition of the patient demands it.

Rheumatic purpura occurs in small spots usually localised about the knees and ankles, although it may be generally disseminated. It is accompanied by fever and rheumatic pains in the joints.

The *prognosis* is really dependent upon the constitutional condition (rheumatism). Cases have ended fatally.

The *treatment* is that of articular rheumatism. Salicylic acid, alkalies, or oil of wintergreen may be given in appropriate doses. No local treatment is necessary,

Hemorrhagic purpura. Hemorrhagic spots and patches of various sizes varying from a pin-head to a small coin appear upon the skin and visible mucous membranes. There may be bleeding from the nose and conjunctivæ, spit-

ting or vomiting of blood, and bloody discharges from rectum and bladder.

Lassitude, loss of appetite, and digestive derangements usually precede the eruption for several days or weeks. The hemorrhages from the mucous membranes may be profuse and cause grave depression of the vital powers.

The *causes* of the disease are not known. In not a few cases it has seemed to be connected with the administration of quinine or iodide of potassium may also produce a purpuric eruption, as described in a previous chapter. The author has seen a purpuric eruption as one of the symptoms of poisoning by camphor.

The *prognosis* is usually favorable. If uncomplicated with any acute infectious disease, or hereditary syphilis, hemorrhagic purpura rarely ends in death.

Treatment. Ergot, aromatic sulphuric acid and tincture of chloride of iron are the remedies usually depended upon in this disease. Quinine, alcoholic stimulants, good food especially fats and hygienic surroundings are important adjuncts in the treatment. For the hemorrhages from the mucous membranes, cold or astringent applications, or tampons may be required. To promote the absorption of the effused blood in the lower extremities, properly applied bandages are

often useful. Woodbury has found fluid extract of hamamelis (3ss-i.) [2.-4.] of benefit. The bleeding from the gums can be controlled in a measure by the local application of a four per cent solution of hydrochlorate of cocaine. The latter remedy was first used in this condition by Waugh.

II.—SCURVY.

Although scurvy is principally a disease of the general system, it has such marked cutaneous manifestations as to demand a brief reference here, especially with regard to its diagnosis from the affections just described.

The symptoms of scurvy are lassitude, listlessness, pains in the limbs, depression of spirits; the skin becomes pale and sallow. Petechial spots appear, generally first on the lower extremities. These may coalesce and form large, irregular patches. There is a puffy condition of the face, especially marked around the eyes. The scleral conjunctiva sometimes becomes of a deep red color, but this condition is not accompanied by pain or purulent discharge. The gums become spongy and swollen, sometimes to such an extent as to project completely beyond the teeth. They bleed upon the slightest touch. This condition of the gums is, however, not an invariable accompaniment of

scurvy, as it is held to be by so many authorities. There is often great shortness of breath. The skin and deeper tissues are infiltrated with blood, and tumors and bruise-like swellings are frequently produced by the slightest injuries. The skin is liable to break down upon very slight pressure and result in fungoid ulcers, which are often very destructive.

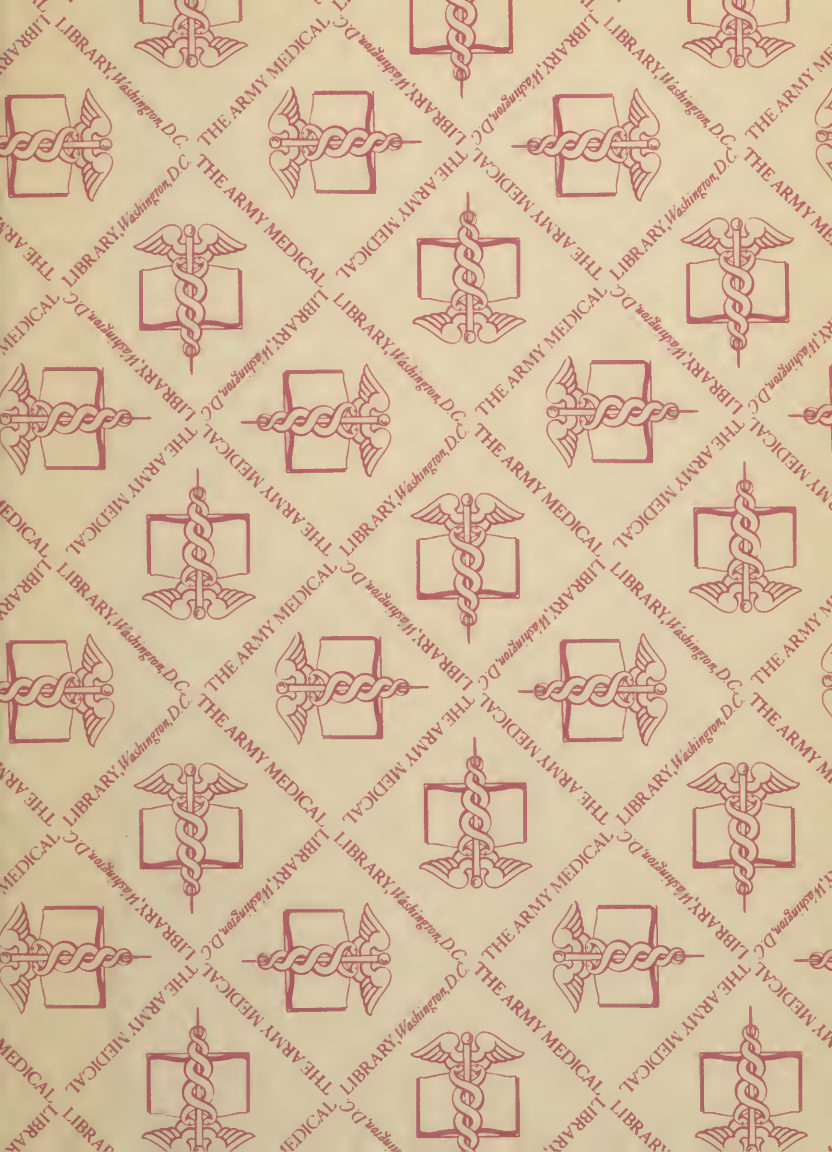
The *diagnosis* from hemorrhagic purpura is not difficult if the symptoms of the two diseases be borne in mind. The pallor, listlessness, short-windedness, spongy condition of the gums and bloating of the face are absent in purpura.

The *treatment* of scurvy consists in supplying an abundance of fresh meat and fresh vegetables, and placing the patient in a dry, well-lighted apartment. Fresh lemon juice is highly useful in the treatment of the disease as well as in its prevention.

As a preventive of scurvy at sea, two ounces of lemon or lime juice per week should be allowed to each person. When scurvy appears the supply should be unrestricted. Locally, cocaine may be applied for the bleeding from the gums, as practised by Waugh and Woodbury in purpura hemorrhagica.







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